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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SLOAN, NATHAN A

ART UNIT PAPER NUMBER

2614

DATE MAILED: 12/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,628

Applicant(s)

FRIES ET AL.

Examiner

Nathan A Sloan

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-32 and 38-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-32 and 38-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 5/5/03 after an interview on 4/14/03 necessitates the new grounds of rejection below. Newly added limitations and claims are addressed in detail in the following rejections. Claims 1-22, 33-37 have been cancelled and claims 23-32 as well as newly added claims 38-52 are pending.

The amendment filed 5/5/03 fails to comply with 35 U.S.C. 1.121 which requires that the status of the claims be correctly indicated. Claims 30 and 32 are indicated as Original, however they appear in amended form. Claim 47 is indicated as Original, however it is a newly added claim. Claim 52 is indicated as Currently Amended, however it is a newly added claim.

Because this appears to be a bona fide response, examiner will treat the case with the claims as presented. However, applicant must make appropriate corrections in accordance with 35 U.S.C. 1.121 to indicate the proper status of the claims in response to this Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 52 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Ko (6,486,925).

With respect to claim 52, the claimed method for tuning to a channel from among multiple broadcast types without having to designate the broadcast type is taught by the tuning system seen in Figure 3 receiving broadcast signals from multiple tuners 41, 51, and 61 and combining the signals using controller 30. As taught in column 2, lines 46-50 this system allows automatic switching to a channel regardless of broadcast type, meeting the claimed “without having to designate broadcast type.” The claimed computer readable medium for providing executable code is met by the controller 30, which inherently contains executable code to produce control signals and tables such as Table 1 seen in column 5. The claimed step of “storing a plurality of service records, each service record containing tuning information for tuning to a channel of one of the plurality of broadcast types” is taught in column 4, lines 61-67 and column 5, lines 1-6. This information includes a “broadcast type identifier and a channel identifier” as taught in col.5:7-35, col. 6:5-16, and col. 6:35-45 with broadcast type identifiers via a network ID and channel numbers. Program information may be provided in a broadcast digital data stream “over one or more digital channels” via digital satellite broadcasting (col.

4:23-25) to obtain program association tables (PAT) (col.5:55+). Program association tables are used to extract “additional tuning information” which facilitates tuning the system as seen in Fig. 5. This additional tuning information is stored “in one or more of the service records that correspond to the one or more digital channels over which the digital data stream were broadcast” as seen in col.5:10-35 and taught in col.6:1-16. The service records are taught in column 5, lines 36-41 to be categorized into service spaces by grouping tuning information based on the broadcast type. With the tuning information built in memory, a user may select a channel from among broadcast types, claimed “receiving a selection of one of the service records in one of the service spaces” and the channel is then tuned to by controller 30 using the stored tuning information accessed from memory 20. This process is taught in column 2, lines 58-67 and column 3, lines 1-4, and is better understood with reference to Figure 6. Finally, the system automatically tunes to the selected channel “without having to re-extract the additional tuning information that would otherwise be required to tune into the one or more digital data streams” by using the information stored in memory, including that from a PAT, to tune rapidly as taught in col. 2:58+ through col.3:5 and throughout the specification.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23-26, 29-30, 38-43, 46-47, and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925) and in view of ISO/IEC 1-3818.

Ko (6,486,925) teach a system and method for managing channels with digital and analog television signals. Users are allowed to select from channels that are provided from multiple sources and assembled into a single channel map.

With respect to claims 23, 38-40, and 50-51, the claimed method for tuning to a channel from among multiple broadcast types without having to designate the broadcast type is taught by the tuning system seen in Figure 3 receiving broadcast signals from multiple tuners 41, 51, and 61 and combining the signals using controller 30. As taught in column 2, lines 46-50 this system allows automatic switching to a channel regardless of broadcast type, meeting the claimed “without having to designate broadcast type.” The claimed computer readable medium for providing executable code is met by the controller 30, which inherently contains executable code to produce control signals and tables such as Table 1 seen in column 5. The claimed step of “storing a plurality of service records, each service record containing tuning information for tuning to a channel of one of the plurality of broadcast types” is taught in column 4, lines 61-67 and column 5, lines 1-6. The service records are taught in column 5, lines 36-41 to be

categorized into service spaces by grouping tuning information based on the broadcast type. This information includes a "broadcast type identifier and a channel identifier" as taught in col.5:7-35, col. 6:5-16, and col. 6:35-45 with broadcast type identifiers via a network ID and channel numbers. Program information may be provided in a broadcast digital data stream "over one or more digital channels" via digital satellite broadcasting (col. 4:23-25) to obtain program association tables (PAT) (col.5:55+). Program association tables are used to extract tuning information which facilitates tuning the system. Ko is silent on this extracted information including at least one of "a program number, program identifier, and a bit stream type." Regardless, applicants specification clearly admits on page 19:2-5 that PAT and PMT tables are extracted according to MPEG-2 including a bit-stream type, program number, and program identifier. On pages 95-100 (see particularly p. 97) of the ISO/IEC 13818-1 MPEG-2 Systems Standard the use of PAT and PMT tables containing program numbers, program identifiers, and program bit stream type identifiers are clearly shown. In fact, Ko clearly teaches a system in accordance designed to extract PAT as in the present specification and in accordance with MPEG-2 standards as seen in Fig. 5. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Ko by extracting the claimed additional tuning information from PAT and/or PMT tables. One of ordinary skill in the art would be motivated to perform such a minor modification in order to fully comply with MPEG-2 standards and ensure system compliance.

This additional tuning information is stored "in one or more of the service records that correspond to the one or more digital channels over which the digital data stream were broadcast" as seen in col.5:10-35 and taught in col.6:1-16. With the tuning information built in

memory, a user may select a channel from among broadcast types, claimed “receiving a selection of one of the service records in one of the service spaces” and the channel is then tuned to by controller 30 using the stored tuning information accessed from memory 20. This process is taught in column 2, lines 58-67 and column 3, lines 1-4, and is better understood with reference to Figure 6. Finally, the system automatically tunes to the selected channel “without having to re-extract the additional tuning information that would otherwise be required to tune into the one or more digital data streams” by using the information stored in memory, including that from a PAT, to tune rapidly as taught in col. 2:58+ through col.3:5 and throughout the specification.

With respect to claims 24 and 41, the claimed storing information that identifies a tuner is taught in column 6, lines 11-17 by identifying broadcasting channels using ordered channel numbers within a table stored in memory 20. A network ID is also used to distinguish between the types of broadcast, which identifies one of tuners 41, 51, or 61 of Figure 3 for reception of the selected channel. Channel information including tuning frequency and channel number are also stored as noted above with each record, meeting the claimed “storing information that identifies a channel tunable by the tuner.”

With respect to claims 25 and 42, the claimed accumulating a plurality of service records is met by obtaining a plurality of service records, using the process seen in Figure 4 to create a table in memory, seen in column 5.

With respect to claims 26 and 43, the claimed monitoring a broadcast to determine available channels is seen in Figure 4 with steps S12-15. Ko teaches monitoring the various broadcasts with tuners and creating a channel map as seen in column 5 and Figure 5. This

channel map stores tuning information used to tune the various tuners to a channel selected by a viewer.

With respect to claims 29 and 46, the claimed “including a plurality of service records of a plurality of broadcast types within a single service space” is met by obtaining a plurality of service records, using the process seen in Figure 4 to create a single table in memory 20, seen in column 5.

With respect to claims 30 and 47, the claimed “tuning to a selected digital channel” using the additional tuning information within a service record is taught by Ko in view of MPEG-2 as noted above. As seen in Figure 3 and noted above, Ko teaches a digital ground tuner 61 that is used to store service records in memory 20 and tune to a channel requested by a user using the information stored in memory 20.

3. Claims 27-28, 31-32, 44-45, and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925), in view of ISO/IEC 1-3818, and in further view of DeFreese et al. (6,493,876).

With respect to claims 27 and 44, Ko does not explicitly teach the use of “a pointer associated with the service record in at least one of the service spaces” or “creating a master service space that includes pointers to all of the plurality of service records.” DeFreese et al. teach a system and method for full service cable television system, including the ability to receive broadcasts from a plurality of providers and create a master service record. As seen in Figure 5 of DeFreese, the claimed pointers are explicitly taught from a channel table to the service table. The service table is comprised of records that include further pointers to link

information regarding their source for tuning. It would have been obvious for one skilled in the art at the time of the invention to modify the data storing techniques taught by Ko by using pointers as taught by DeFreese in order to provide a flexible architecture that is easily updated.

With respect to claims 28 and 45, Ko does not teach “categorizing at least some of the plurality of service records into service spaces that are categorized according to content,” or “an act of creating a favorites space for including service records that correspond to desirable channels.” DeFreese teaches the use of a subscriber favorite line-up stored in memory in column 17, lines 62-63. As seen in Figure 15, users may categorized channels into a variety of groups such as blocked or favorite channels. It would have been obvious for one skilled in the art at the time of the invention to modify the channel map storing techniques of Ko by allowing the creation of a favorite space as taught by DeFreese in order to allow the viewer quick access to their favorite shows.

With respect to claims 31-32 and 48-49, Ko does not teach storing a service record corresponding to a web page, or storing uniform resource identifier as tuning information for the web page. DeFreese et al. (6,493,876) teach in column 16, lines 21-34 creating a service table comprising services from various sources, including the world wide web. In column 18, lines 5-20 DeFreese et al. further teach that the world wide web address may be identified and tuned to by storing a uniform resource locator. It would have been obvious for one skilled in the art at the time of the invention to modify the techniques taught by Ko by including internet links to provide the user with convenient internet access over existing broadband connections.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shintani et al. (6,490,001) teaches a system and method for increasing speed of receiving television broadcasts.

Ohishi (6,487,720) teaches a system for receiving, recording, and reproducing digital broadcast information included in a digital broadcast signal.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A Sloan whose telephone number is (703)305-8143. The examiner can normally be reached on Monday-Friday from 8:00AM to 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is (703)308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-3900.



JOHN MILLER
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